

ESTABLISHING A REGIONAL ELECTRICITY MARKET IN S.E. EUROPE

by

Prof. Dimitrios Mavrakis

Director of KEPA

Introduction

The establishment of a Regional Electricity Market among sovereign countries is a complicated process that increases exponentially when the power sectors of the participating countries pass through the restructuring process from state owned vertical integrated monopolies to national power markets. In the whole planet, there are only few examples of active Regional Electricity Markets and this makes the undertaking much more difficult.

A Regional Electricity Market prerequisites the existence of strong political commitment at the first stages of its development and is consisted of the appropriate technical infrastructure, a set of rules and the market participants.

Although the main principles of operation seem to be commonly accepted, each Market has its own characteristics and peculiarities. In this respect, policy makers should be very careful to avoid mistakes at the various stages of planning and implementation.

Market designers, should keep in mind that although they have all the time for a careful design before the beginning of a market's implementation, once it starts they must be ready for quick and resulting decisions regulating its proper functioning.

Political commitment

The Regional Electricity Market (REM) in S.E. Europe is an effort of eight countries (six initially) to proceed in its establishment. The participating countries are Albania, Bosnia & Herzegovina, Bulgaria, Croatia, Federal Republic of Yugoslavia, Former Yugoslav Republic of Macedonia, Hellas and Romania.

The origin of the initiative goes back in 1995, when the Energy Policy Group of our Centre carried out a study on the "*Prospects for the Development of a Peripheral Electricity Market in the Balkan Region*". The study dealt with the existing, at that time, power systems and networks in the Balkan countries and examined the perspectives of establishing such a Market.

In 1996, on the occasion of the "*Balkan Energy Interconnection Task Force*", a political initiative of the European Commissioner, our Energy Policy Group raised for the first time the issue of establishing a Regional Electricity Market to the Ministers responsible for energy issues of the participating countries.

In November 1997, the issue of the Regional Electricity Market was included for the first time in the Memorandum of Understanding that was signed among the Ministers of the Black Sea countries.

It took two years and a number of studies and political deliberations, carried out mostly by our Energy Policy Group, before six countries of the region and the European Commissioner signed the "*The Declaration of Intent for the establishment of a competitive Regional Electricity Market in S.E. Europe*", in September 1999.

What the six at the beginning and the eight later, signatory countries declare in this document may be summarized in three sentences.

First, they declare their intention to proceed establishing a competitive Regional Electricity Market in the frame of the European Union policies.

Second, they express their will to interconnect their power systems with the rest power systems of Europe (UCTE).

Third, they appoint a Management Committee (REM – MC) with the mandate to represent the countries involved in the market, to approve the rules of the Market, to agree upon the overall policy and management and to establish the short, medium and long term initiatives which need to be pursued on a priority basis, in order to achieve the Market's objectives within a specified time table while the year 2005 is set as the target year for the Market's operation.

These sentences constitute the hard core of the Declaration and offer the necessary political background for the further promotion of the REM.

Due to its contribution for the establishment of the REM, the Head of Energy Policy Group was included in the REM – MC as the Committee's Coordinator.

Almost one year later in June 2000, a Memorandum of Understanding was signed among the REM Ministers offering the appropriate framework for coordination for the various international initiatives that have been undertaken in the region in the frame of the Stability Pact activities.

Problems in securing the financing of the REM – MC activities for almost two years, have delayed the implementation of the action plan for the next stages of the REM development.

A recent meeting in Brussels, on March 5th 2002, among the Stability Pact donors has reinvigorated the involvement of the European Union and the rest donors of the Stability Pact to development of the REM.

A REM ministerial meeting is expected to take place in late 2002, in order to resume the situation and offer the necessary political increment for the further development of the REM.

In conclusion,, I have spent most of the time of my presentation not only to show you our role in establishing this Market, something that makes us feel proud, but also mainly to show that the existence of strong and continuous political commitment is a prerequisite for the first stages of a Regional Electricity Market's development.

Technical Infrastructure

A Regional Electricity Market cannot be developed unless the participating systems can be interconnected in synchronous and parallel mode. This requires an agreement on certain common rules concerning the operation modes of the participating networks. Especially those associated with the frequency and voltage regulation. The contributing power systems may be interconnected in a tight or loose pool scheme depending on the market's characteristics, but the proper function of the market requires at least their parallel and synchronous interconnection.

In the past, the power systems of the REM countries were divided in two groups following their political orientations while Albania remained isolated.

The new political landscape that emerged after 1989, gave a strong impetus towards the interconnection of all power systems in the region with those of west Europe.

In 1995, the state owned power utilities of the region decided to interconnect their systems in synchronous and parallel mode of operation with the perspective of their interconnection of the whole region with the rest grid of UCTE. At that time Hellas and the Former Yugoslavia were already members of UCTE.

The war hostilities that followed in the region, resulted in the destruction of transmission lines and substations and disconnected the region from UCTE.

The intensive efforts that follow the period of war hostilities resulted in the reconstruction of the destroyed infrastructure. Furthermore, two countries of the region, Bulgaria and Romania made decisive steps towards their interconnection to UCTE, but still a considerable

amount of technical assistance is necessary before the proper functioning of the interconnected power systems.

In conclusion, the existing technical infrastructure of the REM satisfies a minimum level that allows to proceed in establishing the Market, but certain works are necessary if the countries of REM want to improve the standards of their operation and to be interconnected with the grid of UCTE.

Set of rules

Provided that the necessary political commitment is secured and the minimum technical infrastructure exists, then the next crucial issue for the development of a REM is the agreement on the rules that will govern the market and the procedures for their implementation.

Two at least issues should be resolved sufficiently before the market starts its functioning. These are related with the wheeling conditions among the interconnected networks and with the allowed access to the national markets.

In our case, the situation is more complicated since these issues have to be resolved at national level before the participating countries proceed with the necessary legislative harmonization at regional level.

Having in mind that the starting point for all of them was the state own vertical integrated monopolies, the countries of REM are involved in a parallel effort attempting to create their own national power markets with the minimum social and economic costs while at the same time, they try to be in compliance with the trends that emerge in EU directives.

In the recent years, a considerable progress has been achieved concerning both issues mainly due to the positive influence of EU policies. Most of the REM countries have started restructuring their power sectors by separating power production from transmission network. The development of National Transmission System Operators (TSO) created the environment where both producers and consumers may have access to the network and consequently ask for the execution of contracts that they may freely negotiate.

In addition, a national Regulator who more or less is compatible with the basic model that is promoted by EU regulates almost every national market.

Of course a REM is much more than an agreement on establishing a TSO and a Regulator. In our case, a lot of problems should be resolved before the proper functioning of the Market. I would not take your time mentioning these problems, but we are optimistic that these problems will be resolved gradually in the coming years.

Nevertheless, we consider that the appointment of a Management Committee of the REM, consisted of high-level representatives of their Energy Ministers with the mandate to oversee the establishment of the REM creates the mechanism that allows the REM countries to take the necessary decisions through the REM ministerial meetings.

Market participants

A Market cannot operate without its participants. The more they are the better the market is functioning. Moving from state monopoly to competitive market conditions it is expected that the final consumers will have access to as many as possible producers and this through the competition will result in low prices for them. On the other hand, the larger the Market the better the scale of economy for the producers and the lower the prices they offer, not to mention the issues related to the optimum use of available resources.

Opening in the production of former monopolies is expected to attract new and private investments, while opening in consumption is expected to lead to lower electricity rates through competition. But this is only theory. The reality is somehow more complicated.

Private investors are not interested to enter in the production, unless they have sound expectations for attractive profits. The ground for such expectation is the demand magnitude of the market and the established price mechanisms.

The later, is the most crucial issue in the whole procedure. The reason is that in all countries of the REM the price of kWh has been defined in the past, with political and social criteria. This policy has created a certain social behavior among the consumers according to which electricity is a social good rather than a commodity.

In this respect, consumers behave rather as citizens enjoying a social good than as consumers who have to pay for the consumed commodity. Further to that, in all countries of the region, with the exception of Hellas, the present state of national economies does not allow the governments to proceed with drastic increases in the tariffs that their people have got used to in the past without having serious social and political problems.

On the other hand, if the prices do not reflect the real costs, the private investors will refuse to invest in power production regardless of the market settlements, unless the Government guarantees buying their production at certain prices. But in this case, we are not talking about competition and Market's operation.

In conclusion, defining the market participants in both the production and the consumption plus establishing cost reflecting tariffs are the most delicate and complicated issues that the countries of REM should resolve in their way towards their integration with the rest economies of the European Union.

Conclusions

Although the main principles governing a REM seems to be commonly accepted, each Market has its own characteristics and policy makers should be very careful to avoid mistakes that may create serious problems in the smooth operation of the whole power sector.

The Regional Electricity Market (REM) in S.E. Europe is an effort of eight countries to proceed in its establishment. The participating countries are Albania, Bosnia & Herzegovina, Bulgaria, Croatia, Former Yugoslav Republic of Macedonia, Hellas, Serbia & Montenegro, Romania. Strong political commitment, at the highest political level is a prerequisite for the first stages of a Regional Electricity Market's development.

The existing technical infrastructure of the REM satisfies a minimum level that allows to proceed in establishing the Market, but certain works are necessary if the countries of REM want to improve the standards of their operation and to be interconnected with the grid of UCTE.

The institutional part of a REM is much more than an agreement among national TSOs and Regulators. A lot of problems should be resolved before the proper functioning of the Market.

The appointment of a Management Committee of the REM, consisted of high-level representatives of their Energy Ministers with the mandate to oversee the establishment of the REM creates the mechanism that allows the REM countries to take the necessary decisions through the REM ministerial meetings.

Defining the market participants in both production and consumption plus establishing cost reflecting tariffs are the most delicate and complicated issues that the countries of REM should resolve in their way towards their integration with the rest economies of the European Union.

Our Energy Policy Group has contributed in establishing this REM and it will continue its efforts for the benefit of the countries of the region.

Before closing my presentation, let me repeat that we are honored from your visit and that we will be glad to find ways of cooperation and that for this reason we will be glad to receive postgraduate students or to host, for short visits, Chinese energy policy makers or scientists involved in energy policy issues.